



National Science Foundation

2007 E-Government Report

September 21, 2007



Section 1: Implementation of Electronic Government Initiatives

NSF supports the goals of the E-Government Act of 2002 by utilizing technology to improve services to citizens, businesses, and other federal agencies. NSF is a federal leader and innovator in government-wide efforts to support basic research in the sciences and engineering.

For this year's E-Government Act compliance report, we are highlighting the Public Access to Research Results initiative. This initiative directly links information on NSF-funded science and research awards to citations of journal articles that have been published as a result of the award. These results are provided in the form of citations entered by Principal Investigators (PIs) into FastLane, our Web-based grants management system used by scientists, educators, technology experts and administrators to conduct e-business with NSF, and made available to members of the public via the Award Search feature of the NSF web site. To date, over 16,000 citations have been added using the new search utility in FastLane and made available via Award Search; planned enhancements will provide additional functionality and benefit to NSF and our constituents.

The publication citations made available via the Public Access to Research Results initiative can be accessed from the NSF public web site at: <http://www.nsf.gov/awardsearch/>.

A. Transforming agency operations

The Public Access to Research Results initiative has transformed agency operations by improving internal processes and providing the public with information on the outcomes of NSF-funded research.

The Public Access to Research Results enhancement in FastLane has improved the process by which PIs report on the results of their research via their annual and final project reports. As a condition of their NSF award, PIs are required to report annually on any publications and/or products that resulted from their research. Through the Public Access to Research Results module, PIs are able to search a validated third-party citation database (Thomson Scientific) and locate publications resulting from their NSF-funded research. Once they find one or more relevant citations, they can easily add the citations to the Award Search database with a click of the mouse. The PIs enjoy the ease-of-use provided by the new Public Access to Research Results module, and NSF benefits from more robust project reporting.

Public Access to Research Results also transforms agency operations by providing a positive experience to users of the public Award Search tool. The inclusion of citations to journal articles improves the utility of the funding award information that Award Search has traditionally provided; now interested parties can better see the direct outcomes of the NSF-funded grants.

B. Dialogue with public

NSF maintains a regular dialogue with key public constituents to ensure that the information technology (IT) resources and tools we provide are meeting stakeholders' needs.



NSF's outreach activities demonstrate that the public has a significant interest in learning about the results of agency-funded research. The results of two surveys conducted by NSF in 2003 and 2004 indicated that constituents, including members of the public, the media, the research and education community, and the legislative community, would like greater access to the results of NSF's research.

C. External partners

NSF's interactions with external partners from academic institutions, other federal agencies, and private industry partners help to shape the Public Access to Research Results initiative and ensure it meets the interests of our stakeholders. NSF utilized our membership in the Federal Demonstration Partnership (FDP) to vet the Public Access to Research Results concept and launch a pilot test to determine its feasibility. Additionally, NSF provided presentations to the Society of Research Administrators (SRA) and the National Council of University Research Administrators (NCURA) to disseminate agency plans to enhance the award abstracts already available on the NSF web site. With the continual input and feedback of these external partners, NSF designed, pilot-tested, and refined the Public Access to Research Results module in FastLane.

The provision of publication information through the Public Access to Research Results initiative is enabled by NSF's agreement with another external partner, Thomson Scientific. NSF provides a direct link to Thomson Scientific's citation database via FastLane, so that PIs can provide citation information from an authoritative source. The citation records in Award Search, available via the NSF public website, also link directly to the full set of publication information in the Thomson Scientific database.

D. Improved performance

The implementation of Public Access to Research Results helps NSF to better demonstrate the linkage between funded research and impact to the America public. Public Access to Research Results has increased the availability of publication information pertaining to agency awards. Since its implementation, over 75,000 publication citations have been linked to awards and made available via the Award Search feature on the NSF website.

Public Access to Research Results has improved key NSF processes as well. Before Public Access to Research Results was implemented, PIs had to manually enter citations to relevant journal publications as part of their progress report submissions. PIs indicated an interest in improving the mechanism by which they report publication information as part of the annual and final reporting processes. The user-friendly interface provided by the Public Access to Research Results module walks PIs through the process of adding citations.

Planned enhancements will further improve NSF's collection of citations and provide greater access to the publications resulting from NSF funding. For example, a future iteration of Public Access to Research Results will allow PIs to identify and add relevant citations outside of the



normal project reporting cycles (e.g., when a publication is first made available, rather than just in conjunction with annual NSF reporting requirements.)

E. Cost savings/avoidance

NSF has not directly identified cost savings or cost avoidance as a result of this initiative. Public Access to Research Results is not designed to remove redundancy, but to add an additional mechanism for disseminating NSF's research results. Although exact cost savings have not been defined, this initiative does ensure NSF's accountability in the use of federal funds by demonstrating to taxpayers that they have received value from federal investments in basic research.

F. Ensures availability of government information and services to all

NSF has several mechanisms for providing the information available via Public Access to Research Results and other agency products to all members of the public, even if they lack access to the Internet or have disabilities that affect their use of traditional information resources. For example:

- NSF's Reception and Information Center fields inquiries regarding the agency's programs, offices, staff, and publications, and is dedicated to serving as a resource for all interested parties. *NSF Information Center: (703) 292-5111 or info@nsf.gov (TDD: 703-292-5090, FIRS: 800-877-8339).*
- NSF publications can be requested at the Information Center, by phone, or via mail. *NSF Publications: (703) 292-7827, or NSF Publications, Suite P-60, Arlington, VA 22230.*
- NSF provides members of the public with access to books and publications that are relevant to the mission of the Foundation. Customers may request materials from the NSF library via interlibrary loan. *Science Information Services (NSF Library): library@nsf.gov.*

G. Applies effective capital planning and investment control

NSF has applied effective capital planning and investment control processes, such as those described in OMB's "Capital Programming Guide," in the selection and implementation of Public Access to Research Results. During the investment selection process, NSF determined that the investment would support high priority mission functions and goals as described in the NSF Strategic Plan. We also ensured that the Public Access to Research Results effort, as designed and implemented, would not duplicate existing efforts within the agency and would leverage existing resources wherever possible. When considering investment options, NSF's analysis determined that benefits would outweigh the potential risks. Finally, NSF decided to pilot the initiative to establish proof-of-concept and test the feasibility of the investment before implementation. Following a successful pilot demonstration, NSF decided to proceed with moving the Public Access to Research Results initiative to full production.

Section 2: Agency Information Management Activities



NSF coordinates information dissemination activities and makes information products available on the NSF website (<http://www.nsf.gov/>) to ensure that members of the public can easily locate, access, and utilize the Foundation's public information products.

The NSF website is the agency's primary interface for disseminating information to scientists, engineers, university administrators, educators, business, vendors, the media, policy makers, and the interested general public. NSF's science and engineering Directorates and administrative offices collaboratively provide content and manage the NSF web site.

The sections that follow provide information on some of the specific sources of content included on the NSF web site.

A. Information Resources Management (IRM) Strategic Plan

Pursuant to OMB Memorandum M-06-02, "Improving Public Access to and Dissemination of Government Information and Using the Federal Enterprise Architecture Data Reference Model," NSF's IRM Strategic Plan describes the NSF information dissemination program and provides a review of the program's performance and results.

NSF's IRM Plan may be found at <http://www.nsf.gov/oirm/dis/irp101906.pdf>.

B. NSF's Information Dissemination Products, Priorities, and Schedules

As required by Section 207 of the E-Government Act of 2002, NSF's inventory of web site content, priorities and schedules can be found on NSF's web site at http://www.nsf.gov/policies/egov_inventory.jsp.

The NSF inventory of categorized information products includes information products that are published on the NSF web site. The information products within the inventory are classified and organized according to the type of content they include and/or their intended audience: the research and education community that competes for NSF research awards; the public, including K-12 educators; public information/media professionals; and those who use NSF statistical information on science and engineering.

In addition to the categorization and schedules of NSF information dissemination products referenced above, NSF provides several other types of resources to the public via the NSF web site. These include:

Information on the Benefits of NSF's Research

- Discoveries: Brief stories highlighting research results, focusing on some of the important discoveries and innovations that began with NSF-supported research.
- Special reports: Mini-web sites that provide in depth looks at the latest advances and hot topics in science, engineering and education research.
- Research overviews: Pages that identify the "big questions" in each field of science, engineering and education research supported by NSF and show how NSF-funded researchers are addressing them.



- Multimedia Gallery: Photos, illustrations, animations, sound bites, radio and video programs, and podcasts to help the public learn about and explore fascinating advances in science and engineering.
- News and story ideas: News releases, media advisories, and fact sheets providing coverage of the latest advances at the frontiers of science, mathematics, and engineering, as well as agency activities and messages to the general public and other external audiences; also news releases published by grantee institutions and other partners.

Resources Related to NSF's Operations

- Legislative information: Major NSF-related legislation in Congress, a calendar of hearings, hearing testimony and summaries, NSF budget information, and program information by state.
- Speeches, statements, and presentations: Materials used by the NSF Director and Deputy Director to communicate the mission and work of the Foundation to a variety of audiences such as state governments, business and industry, and foundations and organizations.
- Now Showing: Feature articles related to the wide variety of NSF educational and informational projects, including films, museum exhibits and television and radio programs, designed to promote public understanding of science, mathematics, engineering and technology.
- Classroom resources: A diverse collection of lessons and web resources for classroom teachers, their students, and students' families, arranged by research area.

Materials for the Research Community

- Proposal and Award Policies and Procedures Guide (PAPP): A resource providing guidance on the NSF award process. The PAPP incorporates the Grant Proposal Guide, the Grants.gov Application Guide and the Award Administration Guide.
- Grant and Agreement Conditions: Links to the terms and conditions that govern various types of awards.

Statistical Information and Reports

- Detailed Statistical Tables: Reports containing an extensive collection of tabulated data from the Science Resources Statistics (SRS) program's surveys.
- InfoBriefs: Highlights results from the SRS's surveys and analyses, including periodic overview reports on topics such as women, minorities, and persons with disabilities in the sciences and engineering.

C. Agency Freedom of Information Act (FOIA) information

NSF's FOIA Handbook (Public Information Handbook) is available from the public NSF web site at:

<http://www.nsf.gov/pubs/2007/nsf07135/nsf07135.pdf>.

NSF's primary FOIA web site is accessible at: <http://www.nsf.gov/policies/foia.jsp>.



NSF maintains an online collection of significant agency documents (including documents most frequently requested under FOIA) at:
<http://www.nsf.gov/publications/ods/>.

D. Sources of R&D information

One of NSF's central missions is to fund research and development (R&D) activities in science and engineering. Information about the R&D activities that are funded by NSF is available on the NSF public web site via the Award Search function. Award Search allows users to search the title, abstract, and other key information to find out what areas of research the Foundation has funded. A successful search delivers summary information for each award, including the start and end date of the award, the total award amount, and an abstract describing the nature of the work to be performed. With the implementation of the Public Access to Research Results initiative described in Section 1, some of the award abstracts also include information on publications that have resulted from in-progress or completed research.

In addition to providing R&D information on our public web site, NSF also provides information about R&D funding activities to the federally coordinated Research and Development in the United States (RaDiUS) database (<https://radius.rand.org/radius/>) and to Science.gov. These systems provide two additional sources of access to NSF-funded activities, aside from direct access via NSF.gov.

E. Agency Agreements to Facilitate Information Dissemination

NSF's implementation of the Public Access to Research Results initiative, as described in Section 1 of this report, illustrates how agency agreements with external entities facilitate information dissemination. NSF's membership in the Federal Demonstration Partnership provided the mechanism by which the Public Access to Research Results initiative was vetted, tested, and implemented. Additionally, NSF's commercial agreement with Thompson Scientific provides NSF's customers with ongoing access to the citations resulting from agency-funded research.

NSF's Division of Science Resources Statistics (SRS), which provides a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources, works collaboratively with other federal agencies and international science organizations to improve the capture and analysis of scientific statistical data. SRS's work is facilitated by interagency committees, jointly funded efforts, and other agreements, and results in the provision of statistical reports and data via the NSF web site and through other sources.

Looking forward, NSF's leadership in Research.gov will provide the public and the general science community with a unique source of information on federal grant activities. Its success will be highly dependent on the agreements forged by NSF and other agencies.

F. Agency Records Management Program



NSF continues to manage Foundation records in accordance with federal records management requirements, including those included in OMB Circular A-130. NSF regularly identifies records in all formats and works with the National Archives and Records Administration (NARA) to schedule and transfer, as appropriate, records requiring permanent retention.

NSF's NARA-approved records schedules are available on the "Inside NSF" web site, which is accessible to NSF employees and contractors only. They are not publicly accessible on the public NSF web site at this time. The following inventory briefly describes NSF's unique records, exclusive of what is covered by the General Records Schedule.

- **Grant and Contract Records:** Materials created and maintained to administer the granting of Government funds for the promotion of basic research, science information, and science education.
- **National Science Board:** Documentation related to decisions of the National Science Board.
- **Office of the Director:** Official correspondence of the NSF Director.
- **Office of Legislative and Public Affairs (OLPA):** Formal publications, transcripts of official speeches, and other records unique to this NSF office.
- **Office of Budget, Finance, and Award Management:** Files associated with budget formulation, submission, justification, and use. (Approved by NARA as "Office of Budget and Control" records).
- **Personnel Records:** Personnel files of individuals who participate in the U.S. Antarctic Research operations under NSF grant or contract.
- **Printing, Binding, Duplication, and Distribution Records:** Copy of each publication, poster, chart, directive, regulation, booklet, speech, form, press release, and similar material originating from an NSF office other than OLPA.
- **Procurement, Supply and Grant Records:** Title papers documenting the acquisition of real property.
- **Special Assistant - Office of the Director:** Records pertaining to NSF executive bodies and to the Director's Special Awards.
- **Property Disposal Records:** Records dealing with the sale or disposal of surplus real and personal property by NSF.
- **Administrative Management Records:** Copies of official directives, forms, organizational charts, and other records related to administrative management.
- **Fellowship Records:** Materials created and maintained to administer the granting of government funds for awards of Fellowships in the sciences.
- **Design and Construction Drawings and Related Records:** Preliminary and presentation drawings and models of Federal Structures and engineering projects such as the National Research Centers.
- **Science and Engineering Surveys:** Scientific and engineering surveys relating to activities and trends in science and engineering programs, federal funding for research and development; federal support to colleges and universities; scientific and engineering employment; and personnel characteristics.
- **Congressional Correspondence Records:** Correspondence from the Congress with replies from NSF.



- Declined and Withdrawn Proposal Case Files: Program case files consisting of declined and withdrawn proposals related to the promotion of scientific research.
- Office of the Deputy Director: Official correspondence files for the Office of the Deputy Director.
- Office Of Inspector General: Investigation files, audit and review materials, and other records from the NSF Office of the Inspector General.

NSF anticipates meeting the September 30, 2009 deadline to have NARA-approved schedules for all records in existing electronic systems, as specified in the E-Government Act of 2002 and NARA Bulletin 2006-02. To ensure we will meet the deadline, NSF continues to take necessary steps to analyze agency systems and resources, such as the following:

- NSF is investigating the capabilities of electronic records management systems to facilitate the central management, retention, and electronic transfer of agency records in digital format and ensure compliance with DoD 5015.2 standards.
- NSF has received NARA approval to use eJacket as the official agency record of proposals and non-awards, and is investigating options for the transfer of eJacket materials to NARA.
- NSF's Records Officer continues to meet with system owners and administrators to determine how to proceed with inventorying systems, to identify the content of system records, and to update business practices.
- NSF continues to transfer electronic media to NARA as scheduled (e.g., magnetic media including Award System information), and has tested the transmission of awards system records via email, in preparation of formal transmission of electronic records in the future.

NSF has not submitted any records schedules to NARA in FY 2007, but estimates that there are approximately six agency systems that will require records schedules by the end of FY 2009.